

Remarks

Reconsideration of this Application is respectfully requested.

Upon entry of the foregoing amendment, claims 1-23 are pending in the application, with claims 1, 11, and 18 being the independent claims. Claims 1, 8-13, and 18-20 are amended, without prejudice to or disclaimer of any subject matter canceled therein. Support for these changes can be found, inter alia, in paragraphs 0031, 0032, and 0078 of the Specification, and FIGs. 1 and 2 of the Drawings. These changes are believed to introduce no new matter, and their entry is respectfully requested.

Based on the above amendment and the following remarks, Applicants respectfully request that the Examiner reconsider all outstanding objections and rejections and that they be withdrawn.

Objection to the Specification (i.e., Claims)

In the Office Action, the Examiner objected to claims 12, 13, 19, and 20 for allegedly lacking antecedent support for the expression "said phase code sequence." (See Paper No. 6, page 2). Applicants believe the Examiner's objections are no longer valid and/or have been rendered moot by the proposed amendments. As such, Applicants respectfully request reconsideration and withdrawal of the Examiner's objections to the aforesaid claims, and allowance thereof.

Rejections under 35 U.S.C. § 112

In the Office Action, the Examiner rejected claims 12, 13, 19, and 20 as allegedly being indefinite under 35 U.S.C. § 112, second paragraph for lacking antecedent support for the expression “said phase code sequence.” (See Paper No. 6, page 2). These claims have been amended, and Applicants believe the Examiner’s rejections are no longer valid and/or have been rendered moot by the proposed amendments. As such, Applicants respectfully request reconsideration and withdrawal of the Examiner’s rejections of the aforesaid claims, and allowance thereof.

Rejections under 35 U.S.C. § 102

In the Office Action, the Examiner rejected claims 1-23 under 35 U.S.C. § 102(b), as allegedly being anticipated by U.S. Patent No. 6,198,488 to Lindholm *et al.* (herein referred to as “Lindholm”). Although Applicants respectfully disagree, Applicants believe the Examiner’s rejections are no longer valid and/or have been rendered moot by the proposed amendments.

Referring to the independent claims (namely, claims 1, 11, and 18), Applicants have amended the claims to more clearly recite features that are not disclosed in Lindholm. For example, with respect to the independent claims, Lindholm does not disclose a method, system, or computer program product for:

**identifying a phase module sequence
corresponding to said one or more phases in response to
said evaluated mode command, wherein said phase module**

sequence includes at least one **phase module containing microcode** to implement a corresponding phase.

Lindholm appears to describe technology for processing vertices, one at a time, at four specific modules: a transform module, lighting module, rasterization module, an setup module. (See Column 2, lines 17-19, and Column 6, lines 44-56). Instructions are selected and executed at the time that a vertex is processed “in” each module.

One distinction between Applicants’ invention and the system described in Lindholm encompasses the expression “module.” Applicants’ usage of “module” refers to a group of “microcode.” On the other hand, Lindholm uses “module” to refer to some type of an “execution unit” or “execution engine” that executes a specific set of microcode for a designated module. Lindholm describes four specific modules (i.e., execution units), each of which performs a specific process within a graphics pipeline. For example, a “transform module” performs graphics functions such as, scaling, rotation, etc.; a “lighting module” performs graphics functions such as, setting color, appearance, etc.; and so forth. (See Col. 2, lines 26-39).

On the contrary, Applicants’ invention selects and loads one or more “groups” of microcode, which are executed to render a graphics mode. Each group is referred to as a phase module. Hence, Applicants’ modules are not execution units or engines, but rather a group of microcode. Therefore, Lindholm does not disclose a “phase module containing microcode,” as recited in Applicants’ invention.

Additionally, Lindholm does not disclose “identifying a phase module sequence corresponding to said one or more phases,” as recited in Applicants’ invention. It should

be noted that Lindholm describes an inflexible system that only supports pipelining for the phases executed by the four “modules” (i.e., execution units), which are situated on a single semiconductor integrated circuit or chip. (See Col. 6, lines 45-51). Hence, Lindholm’s modules (i.e., execution units) are fixed in hardware. Applicants’ invention is independent of the type of computer platform and supports any combination of phases for rendering a desired graphics mode, which includes several phases not described or suggested by Lindholm. In other words, Applicants’ types of phases are not set in hardware as described in Lindholm. Applicants’ invention includes mechanisms for identifying the requisite phases (i.e., microcode) that corresponds to a desired graphics mode, and thereafter selecting the matching phase modules (i.e., microcode) to render the mode. This feature is not disclosed in Lindholm.

Therefore, Applicants respectfully submit that Lindholm does not disclose Applicants’ claimed invention as recited in independent claims 1, 11, and 18. Dependent claims 2-10, 12-17, and 19-23 depend from claims 1, 11, and 18, respectively, and therefore, are patentable over Lindholm for at least the reasons stated above, in addition to the additional features recited therein. For example, claim 2 further recites “querying a storage medium **to select a phase module to match said mode,**” which is not taught or suggested by Lindholm. Claim 3 further recites “**loading said phase module sequence** into a microcode instruction memory,” which is not taught or suggested by Lindholm. Accordingly, Applicants respectfully request reconsideration and withdrawal of the Examiner’s rejection of the aforesaid claims, and allowance thereof.

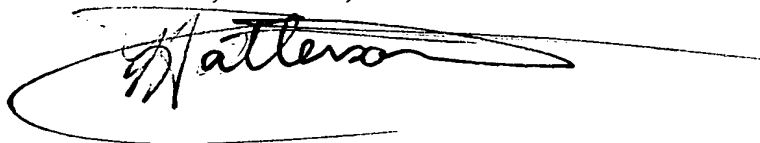
Conclusion

All of the stated grounds of objection and rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding objections and rejections and that they be withdrawn. Applicants believe that a full and complete reply has been made to the outstanding Office Action and, as such, the present application is in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

Prompt and favorable consideration of this Amendment and Reply is respectfully requested.

Respectfully submitted,

STERNE, KESSLER, GOLDSTEIN & FOX P.L.L.C.

A handwritten signature in black ink, appearing to read "K. Patterson", is written over a horizontal line. The signature is stylized with a large, sweeping loop at the end.

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Date: October 6, 2003

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